

AMENDMENTS

Amendments to the Claims:

- The following listing of claims replaces all previous listings or versions thereof:
- 45. (previously presented) An isolated sentrin-specific protease (SENP) polypeptide comprising the amino acid sequence PIH^L/RXVHW wherein X is a glycine, lysine or glutamic acid.
 - 46. (previously presented) The isolated polypeptide of claim 45, comprising at least 25 contiguous amino acid residues of SEQ ID NO: 2, SEQ ID NO: 8, or SEQ ID NO: 10.
 - 47. (previously presented) The isolated polypeptide of claim 45, comprising at least 50 contiguous amino acid residues of SEQ ID NO: 2, SEQ ID NO: 8, or SEQ ID NO: 10.
 - 48. (previously presented) The isolated polypeptide of claim 45, comprising at least 100 contiguous amino acid residues of SEQ ID NO: 2, SEQ ID NO: 8, or SEQ ID NO: 10.
 - 49. (previously presented) The isolated polypeptide of claim 45, comprising at least 150 contiguous amino acid residues of SEQ ID NO: 2, SEQ ID NO: 8, or SEQ ID NO: 10.
 - 50. (previously presented) The isolated polypeptide of claim 45, comprising at least 200 contiguous amino acid residues of SEQ ID NO: 2, SEQ ID NO: 8, or SEQ ID NO: 10.
 - 51. (previously presented) The isolated polypeptide of claim 48, further comprising amino acid residues 400 to 509 of SEQ ID NO: 8.
 - 52. (canceled)
 - 53. (previously presented) The isolated polypeptide of claim 48, further comprising amino acid residues 461 to 568 of SEQ ID NO: 10.
 - 54. (previously presented) The isolated polypeptide of claim 45, comprising SEQ ID NO: 2, SEQ ID NO: 8, or SEQ ID NO: 10.

55. (previously presented) An isolated polypeptide comprising a sentrin-specific protease SENP1.
56. (previously presented) The isolated SENP1 polypeptide of claim 55, comprising at least 25 contiguous amino acids of SEQ ID NO: 2.
57. (previously presented) The isolated polypeptide of claim 55, comprising at least 50 contiguous amino acids of SEQ ID NO: 2.
58. (previously presented) The isolated polypeptide of claim 55, comprising at least 100 contiguous amino acids of SEQ ID NO: 2.
59. (previously presented) The isolated polypeptide of claim 55, comprising at least 150 contiguous amino acids of SEQ ID NO: 2.
60. (previously presented) The isolated polypeptide of claim 55, comprising at least 200 contiguous amino acids of SEQ ID NO: 2.
61. (canceled)
62. (canceled)
63. (previously presented) The isolated polypeptide of claim 55, wherein the SENP1 polypeptide comprises SEQ ID NO: 2.
64. (previously presented) A method of purifying a sentric-specific protease SENP1 polypeptide from a sample comprising collecting a sentric-specific protease polypeptide sample; incubating the sample with an antibody that specifically binds the SENP1 polypeptide; and obtaining the SENP1 polypeptide.
65. (previously presented) The method of claim 64, wherein the purified SENP1 polypeptide comprises the amino acid sequence of SEQ ID NO: 2.